In the Claims

Claims 1-56 (Cancelled)

Claim 57 (Currently amended): A method ~~of treating a cognitive deficit caused by damage to the hippocampus of a mammal~~ for treating a disorder associated with damage to, or loss of, brain cells in a mammal, said method comprising intracerebrally transplanting ~~human~~ pluripotent, nestin-positive, ~~hippocampal~~ neuroepithelial cells into ~~said hippocampus~~ the brain of said mammal, wherein said ~~human pluripotent, nestin-positive, hippocampal neuroepithelial cells comprise a temperature-sensitive simian virus 40 large T antigen gene, and wherein said transplanting improves cognitive function in said mammal~~ cells have been genetically modified to be conditionally immortal, wherein said cells are immortal prior to said transplanting and differentiate after said transplanting, and wherein said transplanting improves brain function of said mammal.

Claim 58 (Currently amended): The method of claim 57, wherein ~~said damage comprises damage to, or loss of, brain cells in said hippocampus of said mammal~~ the disorder is associated with damage to, or loss of, brain cells in the hippocampus of said mammal.

Claim 59 (Cancelled)

Claim 60 (Currently amended): The method of claim 57, wherein said ~~human~~ pluripotent, nestin-positive, ~~hippocampal~~ neuroepithelial cells are cells of a clonal cell line.

Claim 61 (Currently amended): The method of claim 57, wherein said method further comprises culturing said ~~human~~ pluripotent, nestin-positive, ~~hippocampal~~ neuroepithelial cells in serum-free medium prior to said transplanting.

Claim 62 (Currently amended): The method of claim 57, wherein ~~said damage~~ the disorder is the result of hypoxia.

Claim 63 (Cancelled)

Claim 64 (Previously added): The method of claim 57, wherein said mammal is a human.

Claims 65-75 (Cancelled)

Claim 76 (New): The method of claim 57, wherein the disorder comprises a cognitive deficit, and wherein the brain function comprises cognitive function.

Claim 77 (New): The method of claim 57, wherein the genetic modification comprises transduction with a temperature-sensitive oncogene.

Claim 78 (New): The method of claim 57, wherein the genetic modification comprises transduction with a temperature-sensitive simian virus 40 large T antigen gene.

Claim 79 (New): The method of claim 57, wherein the genetic modification comprises transduction with a temperature-sensitive simian virus 40 large T antigen gene under the control of an interferon-inducible H-2K^b promoter.

Claim 80 (New): The method of claim 57, wherein said cells are immortal at 33° C and differentiate at 39° C.

Claim 81 (New): A method for treating a disorder associated with damage to, or loss of, brain cells in a mammal, said method comprising intracerebrally transplanting human pluripotent, nestin-positive neuroepithelial cells into the brain of said mammal, wherein said human pluripotent,

nestin-positive neuroepithelial cells comprise a temperature-sensitive simian virus 40 large T antigen gene, and wherein said transplanting improves brain function of said mammal.

Claim 82 (New): The method of claim 81, wherein said mammal is human.

Claim 83 (New): The method of claim 81, wherein said cells are immortal at 33° C and differentiate at 39° C.

Claim 84 (New): The method of claim 81, wherein said temperature-sensitive simian virus 40 large T antigen gene is under the control of an interferon-inducible H-2K^b promoter.

Claim 85 (New): A method for treating a cognitive deficit caused by damage to the hippocampus of a mammal, said method comprising intracerebrally transplanting human pluripotent, nestin-positive, hippocampal neuroepithelial cells into said hippocampus of said mammal, wherein said human pluripotent, nestin-positive, hippocampal neuroepithelial cells comprise a temperature-sensitive simian virus 40 large T antigen gene under the control of an interferon-inducible H-2K^b promoter, and wherein said transplanting improves cognitive function in said mammal.

Claim 86 (New): The method of claim 85, wherein said mammal is human.